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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/611,455	06/30/2003	James Harold Gray	36968/332546	1612
32210	7590	05/13/2008	EXAMINER	
JOHN S. PRATT			INGVOLDSTAD, BENNETT	
KILPATRICK STOCKTON LLP 36968			ART UNIT	PAPER NUMBER
1100 PEACHTREE STREET				2623
SUITE 2800				
ATLANTA, GA 30309				
MAIL DATE DELIVERY MODE				
05/13/2008 PAPER				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/611,455	Applicant(s) GRAY ET AL.
	Examiner BENNETT INGVOLDSTAD	Art Unit 2623

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 17 March 2008.
- 2a) This action is FINAL. 2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) Claim(s) _____ is/are allowed.
- 6) Claim(s) 1-31 is/are rejected.
- 7) Claim(s) _____ is/are objected to.
- 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No(s)/Mail Date 12/19/07, 3/25/08
- 4) Interview Summary (PTO-413)
 Paper No(s)/Mail Date. _____
- 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Response to Amendment

1. Applicants are respectfully reminded of the requirements of 37 CFR 1.121(c)(2) with respect to the proper use of brackets for deleting text from claims. In order to expedite prosecution, the examiner shall presume that the material within the brackets has been deleted or stricken-through.

Response to Arguments

2. Applicant's arguments filed 17 March 2008 have been fully considered but they are not persuasive.

3. Applicant has amended the independent claims "to require that the determination to inform the user of receipt of the email message is made independent of any query by the user or user equipment of any email server or email account" [pg. 12]

4. Applicant argues that "Nakano does not disclose or suggest such a push system or method for informing users of an interactive television service of receipt of an email message" [pg. 12]. However, claims 2-10, 13-21, and 23-31 require that the email account is a Post Office Protocol (POP) account, which is well known to be a *pull* system. Therefore it is not clear that these claims support a push system or method. Neither is there any support in the specification for the email account being part of a push system or method.

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5. Further, contrary to Applicant's argument, Nakano discloses the new limitation.

The determination to inform the user disclosed by Nakano is made by an e-mail server in response to a query by a *software program* [para 0014]. The querying may be made on a continual basis [para 0015], i.e. without user input.

6. Applicant has amended the independent claims "to reflect that the hot key signal is multiplexed and modulated with the content signal" [pg. 12]. The examiner agrees that Nakano does not disclose such an architecture. Nakano shows two separate transmission pathways for the TV content and for the email messages, as shown in Figure 8. However, the Grzeczkowski reference is used to show such an architecture. Applicant argues that the Grzeczkowski reference diverges from the Nakano reference "since Grzeczkowski provides automatic weather, traffic or school related alerts while Nakano requires that the source of information for the alert must be queried" [pg. 15]. However, Grzeczkowski discloses that the multiplexed messages may be sent in response to a query, as shown in Figure 3, step 34. Such a query-response architecture would have been compatible and combinable with the query-response architecture disclosed by Nakano, as cited in the respective rejections.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-3, 5-14, 16-24, and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (US 2002/0147988) in view of Grzeczkowski (US 2004/0049785).

Claim 1: Nakano discloses a method comprising:

determining whether to inform a user of an interactive television service of receipt of an email message (filtering emails before notifying a TV user [para 0013]), the determining made independent of any query by the user of any email server or email account (queries are made by the software program [para 0014]); responsive to determining to inform the user of the receipt of the email message, generating a hot key signal indicating availability of the email message (a signal is generated to notify the user by displaying an icon on the screen [0016]);

Nakano does not further disclose that the hot key signal is inserted into and multiplexed with a content signal.

Grzeczkowski discloses a method of informing a user of an interactive television service of receipt of a hot key signal comprising:

inserting the hot key signal into a content signal transmitted to the user from an interactive television service provider via a network with which the user and the interactive television service provider are connected (icons displayed onscreen indicating reception of an alert [para 0029] are hot key signals, and they can be transmitted with a cable signal, e.g. in-band or OOB [para 0030]),

whereby inserting the hot key signal into the content signal comprises multiplexing the hot key signal with the content signal and modulating the multiplexed signal for delivery to the user [para 0030].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Nakano with the teaching of Grzeczkowski in order to send hot key signals multiplexed with television signals [Grzeczkowski para 0030] for the purpose of delivering message information to television users who do not have a separate Internet connection [Grzeczkowski para 0003-0005], thereby improving Nakano's method by providing messages to users who do not have Nakano's separate Internet connection [e.g. Nakano Fig 2, 56k modem connected to ISP].

Claim 2: Nakano further discloses the method of claim 1, wherein determining whether to inform the user of the interactive television service of receipt of the email message comprises periodically polling a Post Office Protocol (POP) account of the user ([para 0015], server can use POP [para 0052]).

Claim 3: Nakano in view of Grzeczkowski further discloses the method of claim 2, further comprising:

retrieving the email message from the POP account (a middle server can download the email messages [Nakano para 0058]); and

sending the email message to the user as part of the hot key signal (messages are received along with the hot key icon so that the user can immediately view the message [Grzeczkowski para 0027]).

Claim 5: Nakano further discloses the method of claim 2, wherein the POP account is an account maintained by an Internet Service Provider (ISP) other than the interactive television service provider (the Internet provider and the TV provider are separate [Fig. 3, claim 1]).

Claim 6: Nakano discloses a method comprising:

receiving, as part a content signal sent by an interactive television service to at least one viewer, a hot key signal [...], indicating receipt of an email message by a Post Office Protocol (POP) account of a user of an interactive television service (a user is notified of the receipt of emails [0013] by a POP account [0052]); the hot key signal independent of any query by the user or user equipment of any email server or email account (queries are made by the software program [para 0014]),

determining whether the hot key signal is relevant to the user (the STB and the email server communicate using IP [0021], so signal relevancy is determined by IP destination addresses); and

responsive to determining the hot key signal is relevant to the user, displaying on a screen an indication that the hot key signal has been received (an icon is displayed on screen [0016]).

Nakano does not further disclose that the hot key signal is inserted into and multiplexed with a content signal.

Grzeczkowski discloses a method of informing a user of an interactive television service of receipt of a hot key signal that is multiplexed into the content signal and modulated with the content signal (icons displayed onscreen indicating reception of an alert [para 0029] are hot key signals, and they can be transmitted with a cable signal, e.g. in-band or OOB [para 0030]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Nakano with the teaching of Grzeczkowski in order to send hot key signals multiplexed with television signals [Grzeczkowski para 0030] for the purpose of delivering message information to television users who do not have a separate Internet connection [Grzeczkowski para 0003-0005], thereby improving Nakano's method by providing messages to users who do not have Nakano's separate Internet connection [e.g. Nakano Fig 2, 56k modem connected to ISP].

Claim 7: Nakano in view of Grzeczkowski further discloses the method of claim 6, further comprising responsive to receiving an indication that the hot key is accepted, presenting to the user the email message indicated by the hot key

signal (the message can be displayed by the user after an icon is shown on screen [Grzeczkowski 0029]).

Claim 8: Nakano further discloses the method of claim 6, wherein determining whether the hot key signal is relevant to the user comprises determining whether a destination address for the hot key signal is an address of the user (STB and email server communicate via the Interenet [Nakano 0021] so IP destination addresses determine relevancy).

Claim 9: Nakano further discloses the method of claim 6, wherein the hot key signal comprises an Internet Protocol (IP) data packet (STB and email server communicate via the Internet [Nakano 0021] so IP packets are used).

Claim 10: Nakano in view of Grzeczkowski further discloses the method of claim 9, wherein the Internet Protocol IIP| data packet has a header portion and a body portion, the body portion having a data field containing the email message (Messages are delivered to STB [Grzeczkowski para 0029] over IP [Grzeczkowski para 0024] and data e.g. messages are contained in the body of IP packets).

Claim 11: Nakano discloses a system comprising:

a content reception, distribution, and switching portion connected with one or more content providers to receive and redistribute interactive television (TV) content (TV provider 14 [Fig. 3]);

a head-end transport portion connected with the content reception, distribution, and switching portion to and encode, multiplex and transmit content signals from the content reception, distribution, and switching portion over a network (TV provider 14 broadcasts to STB 10, Fig. 3);

a hot key generation portion to:
determine whether to inform a user of an interactive television service of receipt of an email message (middle server receives email messages [0058] and determines to notify a user via an on-screen icon [0054]), the determining made independent of any query by the user or user equipment of any email server or email account (queries are made by the software program [para 0014]), and responsive to determining to inform the user of the receipt of the email message, generate a hot key signal indicating availability of the email message (notifying a user via an on-screen icon [0054]).

Nakano does not further disclose that the hot key signal is inserted into and multiplexed with a content signal.

Grzeczkowski discloses a method of informing a user of an interactive television service of receipt of a hot key signal that is multiplexed into the content signal and modulated with the content signal (icons displayed onscreen

indicating reception of an alert [para 0029] are hot key signals, and they can be transmitted with a cable signal, e.g. in-band or OOB [para 0030].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Nakano with the teaching of Grzeczkowski in order to send hot key signals multiplexed with television signals [Grzeczkowski para 0030] for the purpose of delivering message information to television users who do not have a separate Internet connection [Grzeczkowski para 0003-0005], thereby improving Nakano's method by providing messages to users who do not have Nakano's separate Internet connection [e.g. Nakano Fig 2, 56k modem connected to ISP].

Claim 12: Nakano in view of Grzeczkowski further discloses the system of claim 11, wherein the head-end transport portion receives the hot key signal from the hot key generation portion, and multiplexes the hot key signal with the content signal (the hot key signal can be transmitted multiplexed with the television signal [Grzeczkowski 0030]).

Claim 13 is rejected under the same grounds as claim 2.

Claim 14: Nakano in view of Grzeczkowski further discloses the system of claim 13, wherein the hot key generation portion retrieves the email message from the POP account (a middle server can download the email messages [Nakano

0058]) and includes the email message as part of the hot key signal (messages are received along with the hot key icon so that the user can immediately view the message [Grzeczkowski 0027]).

Claim 16 is rejected under the same grounds as claim 5.

Claim 17: Nakano discloses a system comprising: a tuner, receiver for receiving a content signal to a user, demodulator portion (STB 10 [Fig. 3]) and a demultiplexor portion (modem [0060]) to receive a hot key signal [...] indicating receipt of an email message [0014] by a Post Office Protocol (POP) account [0052] of a user of an interactive television service [Fig. 3]; the hot key signal independent of any query by the user or user equipment of any email server or email account (queries are made by the software program [para 0014]), and a processor [Fig. 4] to:

determine whether the hot key signal is relevant to the user (via an IP destination address, since messages are sent as IP packets [0021]) and, responsive to determining the hot key signal is relevant to the user, display on a screen an indication that the hot key signal has been received (notification icon [0016]).

Nakano does not further disclose that the hot key signal is inserted into and multiplexed with a content signal.

Grzeczkowski discloses a method of informing a user of an interactive television service of receipt of a hot key signal wherein a demodulator portion demodulates the hot key signal with the content signal and a demultiplexor portion demultiplexes the hot key signal from the content signal (a DOCSIS modem [para 0030] demodulates and demultiplexes).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Nakano with the teaching of Grzeczkowski in order to send hot key signals multiplexed with television signals [Grzeczkowski para 0030] for the purpose of delivering message information to television users who do not have a separate Internet connection [Grzeczkowski para 0003-0005], thereby improving Nakano's method by providing messages to users who do not have Nakano's separate Internet connection [e.g. Nakano Fig 2, 56k modem connected to ISP].

Claims 18-21 are rejected under the same grounds as claims 7-10, respectively.

Claim 22: Nakano discloses a machine-readable medium having stored thereon a series of instructions (software application [0014] residing on middle server [0058]), the instructions, when executed by a processor, cause the processor to: determine whether to inform a user of an interactive television service of receipt of an email message [para 0014];

responsive to determining to inform the user of the receipt of the email message, generate a hot key signal indicating availability of the email message [para 0014]; and

wherein the determination to inform the user of the receipt of the email message is made independent of any query by the user or user equipment of any email server or email account (queries are made by the software program [para 0014]).

Nakano does not disclose that the instructions cause the processor to:

insert the hot key signal into a content signal transmitted to the user from an interactive television service provider via a network with which the user and the interactive television service provider are connected;

wherein the hot key signal is multiplexed and modulated with the content signal.

Grzeczkowski discloses in a related art an interactive television service (user interacts with received messages [0027]) and a machine-readable medium having stored thereon a series of instructions, the instructions, when executed by a processor (an application stores user profiles and determines to send messages based on the user preference [0007-0008]), cause the processor to:

insert the hot key signal into a content signal transmitted to the user from an interactive television service provider via a network with which the user and the interactive television service provider are connected (messages can be sent to STB over television broadcast systems [0030]);

wherein the hot key signal is multiplexed and modulated with the content signal [para 0030].

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Nakano with the teaching of Grzeczkowski in order to send hot key signals multiplexed with television signals [Grzeczkowski para 0030] for the purpose of delivering message information to television users who do not have a separate Internet connection [Grzeczkowski para 0003-0005], thereby improving Nakano's method by providing messages to users who do not have Nakano's separate Internet connection [e.g. Nakano Fig 2, 56k modem connected to ISP].

Claims 23-24 and 26 are rejected under the same grounds as claims 2-3 and 5, respectively.

Claim 27: Nakano discloses a machine-readable medium having stored thereon a series of instructions (instructions to enable STB to interface with middle server [0058] and display notifications), the instructions, that when executed by a processor, cause the processor to:

receive, from a receiver [...] a hot key signal [...] to a user of an interactive television service, the hot key signal indicating receipt of an email message by a Post Office Protocol (POP) account of the user (notifications are sent to screen connected to STB by middle server [0058]);

determine whether the hot key signal is relevant to the user (the STB and the email server communicate using IP [0021], so signal relevancy is determined by IP destination addresses); and

responsive to determining the hot key signal is relevant to the user, display on a screen an indication that the hot key signal has been received (notification icon [0016]).

wherein the hot key signal is independent of any query by the user or user equipment of any email server or email account (queries are made by the software program [para 0014]).

Nakano does not further disclose that the hot key signal is demodulated and demultiplexed from a content signal.

Grzeczkowski discloses a method of informing a user of an interactive television service of receipt of a hot key signal that is demultiplexed and demodulated from the content signal (icons displayed onscreen indicating reception of an alert [para 0029] are hot key signals, and they can be transmitted with a cable signal, e.g. in-band or OOB [para 0030]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method disclosed by Nakano with the teaching of Grzeczkowski in order to send hot key signals multiplexed with television signals [Grzeczkowski para 0030] for the purpose of delivering message information to television users who do not have a separate Internet connection [Grzeczkowski para 0003-0005], thereby improving Nakano's method by

providing messages to users who do not have Nakano's separate Internet connection [e.g. Nakano Fig 2, 56k modem connected to ISP].

Claims 28-31 are rejected under the same grounds as claims 7-10, respectively.

9. Claims 4, 15, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano (US 2002/0147988) in view of Grzeczkowski (US 2004/0049785), further in view of Chatfield (US 2002/0138561).

Claim 4: Nakano in view of Grzeczkowski does not further specifically disclose the method of claim 2, wherein the POP account is an account maintained by the interactive television service provider.

Chatfield discloses that it is well known for a television service provider to maintain email accounts (ISP, which can be a cable provider, provides services including email [0007]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the POP account disclosed by Nakano in view of Grzeczkowski to be maintained by the interactive television service provider as disclosed by Chatfield for the purpose of gaining higher speed connectivity (Chatfield [0007]).

Claim 15 and 25 are rejected under the same grounds as claim 4.

Conclusion

10. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BENNETT INGVOLDSTAD whose telephone number is (571)270-3431. The examiner can normally be reached on M-Th 8-6:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Beliveau can be reached on (571) 272-7343. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

BI

/Scott Beliveau/
Supervisory Patent Examiner, Art Unit 2623